

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Patent Application of:)
Jun KOYAMA et al.) Group Art Unit: 2814
Application No. 09/774,888) Examiner: Howard Weiss
Filed: February 1, 2001) Confirmation No. 3194
For: SEMICONDUCTOR DEVICE INCLUDING NONVOLATILE MEMORY ARRAY) Date: March 21, 2008

REQUEST FOR RECONSIDERATION

Mail Stop Amendment
Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Sir:

In reply to the December 21, 2007, Office Action, Applicants respectfully request reconsideration and withdrawal of the rejection of the claims. Claims 1, 77-84, 87-90, 93-103, 105, 106 and 108-153 currently are pending with claims 1, 77-80 and 122-125 being independent.

In the most recent Office Action, claims 1, 77, 79-81, 83, 84, 87, 89, 90, 93, 95-98, 100-103, 106, 108-111, 113-116 and 122-149 stand rejected under 35 U.S.C. § 103(a) as being obvious over Yamazaki et al. (JP 11-154714 and the Derwent Translation of this document – hereafter Yamazaki) and Tsutsumi (U.S. Patent No. 5,844,274 – hereafter Tsutsumi); claims 117, 118, 120, 121 and 150-153 stand rejected under 35 U.S.C. § 103(a) as being obvious over Yamazaki and Tsutsumi and further in view of Akbar (U.S. Patent No. 5,656,845 – hereafter Akbar); claims 78, 82, 88, 94, 99, 105 and 112 stand rejected under 35 U.S.C. § 103(a) as being obvious over Yamazaki and Tsutsumi and further in view of Koyama (U.S. Patent No. 5,793,344 – hereafter Koyama); and claim 119 stands rejected under 35 U.S.C. § 103(a) as being obvious over Yamazaki, Tsutsumi and Koyama and further in view of Akbar. These rejections are respectfully traversed at least for the reasons provided below.

With respect to independent claims 1, 77-80 and 122-125, the Examiner asserts that Yamazaki, Tsutsumi and/or Koyama, taken alone or in combination, make obvious all features of claims 1, 77-80 and 122-125. However, Applicants claims 1, 77-80 and 122-125 recite, *inter alia*, the feature of “wherein the first film and the second film are formed by sputtering using an inert gas as a sputtering gas.” As similarly stated in the response filed October 5, 2007 herein incorporated by reference, Applicants contend that Yamazaki, taken alone or in combination with Tsutsumi and/or Koyama, fails to make obvious the present invention, as claimed. Further, Applicants contend that it is non-obvious and therefore novel to combine the feature of wherein the first film and the second film are formed by sputtering using an inert gas as a sputtering gas with the other claimed elements. As shown on page 27, lines 17-20 of the specification, when the film comprising tantalum nitride and the film comprising tungsten are formed by sputtering using an inert gas as a sputtering gas, film peeling due to stress can be prevented. According to the above argument, it cannot be said that Yamazaki, taken alone or in combination with any of the cited secondary references, makes obvious the feature of wherein the first film and the second film are formed by sputtering using an inert gas as a sputtering gas, as claimed.

Further, with regard to the Examiner’s product-by-process argument, Applicants contend that the structure implied by the process step should be considered when asserting the patentability of product-by-process claims over the prior art, especially when the product can only be defined by the process steps by which the product is made, or where the manufacturing process steps would be expected to impart distinctive structural characteristics to the final product. *MPEP* § 2113. That is, Applicants contend that “the film formed by sputtering using an inert gas as a sputtering gas” should be distinguished, as product itself, from a film formed by another prior art method. As shown on page 25, lines 10-13 of the specification, the film formed by the claimed feature where the first film and the second film are formed by sputtering using an inert gas as a sputtering gas, prevents film peeling due to stress. Applicants believe that this effect could not be achieved if there were no structural difference between the film formed by the claimed sputtering and the film formed by the method disclosed in Yamazaki, Tsutsumi and/or Koyama. Thus, Applicants contend that the feature where the first film and the second film are formed by sputtering using an inert gas as a sputtering gas should be considered in the determination of patentability of product claims.

In accordance with the M.P.E.P. § 2143.03, to establish a *prima facie* case of obviousness of a claimed invention, all the claim limitations must be taught or suggested by the prior art. *In re Royka*, 409 F.2d 981, 180 USPQ 580 (CCPA 1974). “All words in a claim must be considered in judging the patentability of that claim against the prior art.” *In re Wilson*, 424 F.2d 1382, 1385, 165 USPQ 196 (CCPA 1970). Therefore, it is respectfully submitted that neither Yamazaki, Tsutsumi, Koyama nor Akbar, taken alone or in any proper combination, discloses or suggests the subject matter as recited in claims 1, 77-80 and 122-125. Hence, withdrawal of the rejections is respectfully requested.

Each of the dependent claims depend from one of independent claims 1, 77-80 or 122-125 are patentable over the cited prior art for at least the same reasons as set forth above with respect to claims 1, 77-80 and 122-125.

In addition, each of the dependent claims also recite combinations that are separately patentable.

In view of the foregoing remarks, this claimed invention is not rendered obvious in view of the prior art references cited against this application. Applicants therefore request the entry of this response, the Examiner’s reconsideration and reexamination of the application, and the timely allowance of the pending claims.

In discussing the specification, claims, and drawings in this response, it is to be understood that Applicants in no way intend to limit the scope of the claims to any exemplary embodiments described in the specification and/or shown in the drawings. Rather, Applicants are entitled to have the claims interpreted broadly, to the maximum extent permitted by statute, regulation, and applicable case law.

Should the Examiner believe that a telephone conference would expedite issuance of the application, the Examiner is respectfully invited to telephone the undersigned agent at (202) 585-8100.

Respectfully submitted,

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